H-Bridge, Brushed DC Motor Driver, 5-28 V, 5 A, 20 kHz

MC33926

Last Updated: Dec 23, 2025

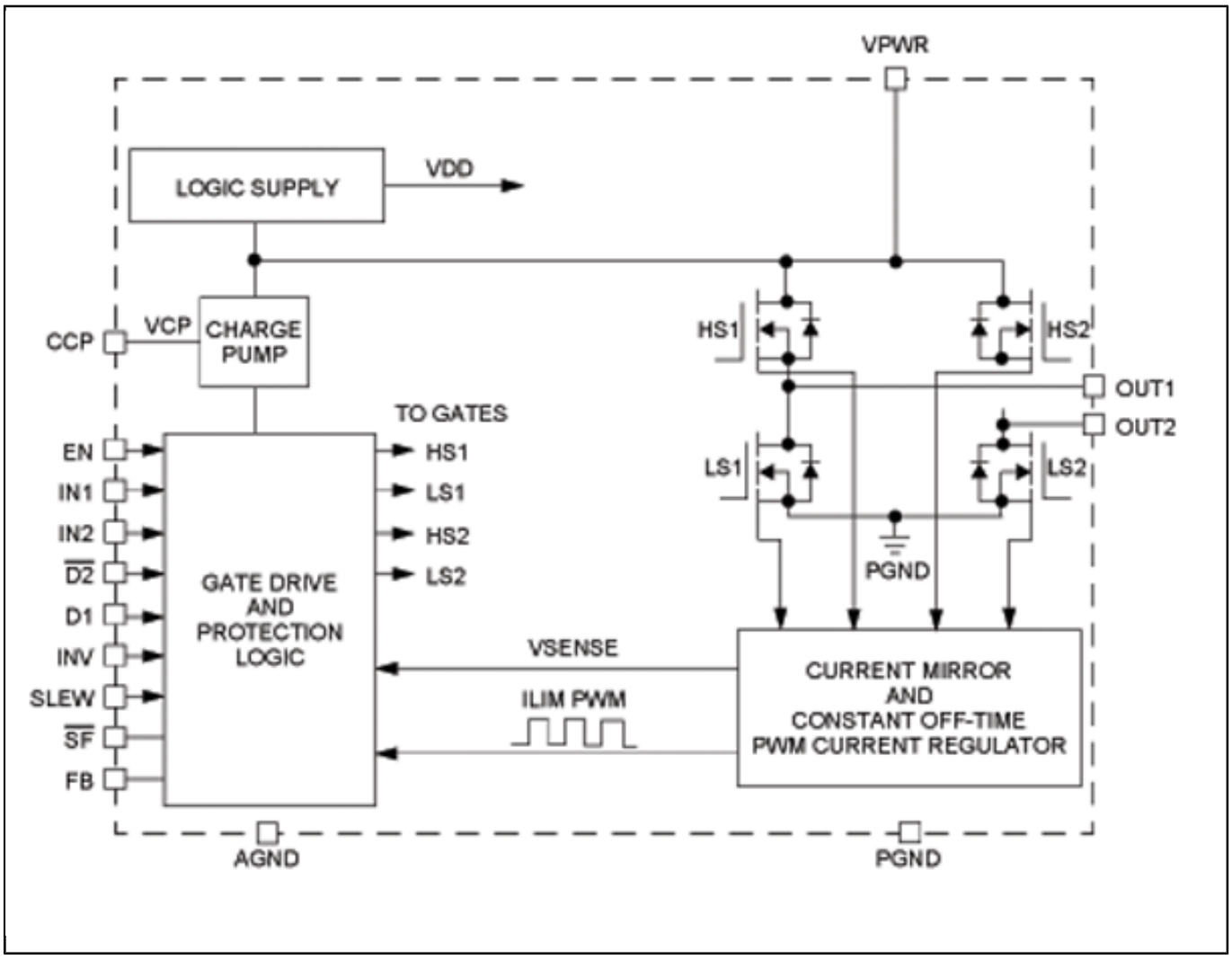
The 33926 is a monolithic H-Bridge Power IC designed primarily for automotive electronic throttle control but is applicable to any low-voltage DC servo motor control application within the current and voltage limits stated in this specification.

The 33926 is able to control inductive loads with currents up to 5.0 A peak. RMS current capability is subject to the degree of heatsinking provided to the device package. Internal peak-current limiting (regulation) is activated at load currents above 6.5 A ± 1.5 A. Output loads can be pulse width modulated (PWM-ed) at frequencies up to 20 kHz. A load current feedback feature provides a proportional (0.24% of the load current) current output suitable for monitoring by a microcontroller's A/D input. A Status Flag output reports undervoltage, overcurrent, and overtemperature fault conditions.

Two independent inputs provide polarity control of two half-bridge totem-pole outputs. Two independent disable inputs are provided to force the H-Bridge outputs to tri-state (high impedance off-state). An inverting input changes the IN1 and IN2 inputs to LOW = true logic.

The MC33926 is a SafeAssure® functional safety solution

NXP MC33926 Power Actuation Block Diagram



View additional information for H-Bridge, Brushed DC Motor Driver, 5-28 V, 5 A, 20 kHz.

Note: The information on this document is subject to change without notice.